

3.2 Summary of Safety and Effectiveness

This summary of 510(k) safety and effectiveness information is submitted in accordance with the requirements of the Safe Medical Devices Act of 1990 as implemented in 21 C.F.R. §807.92.

The submitter of this premarket notification is:

Nancy P. Burke Regulatory Specialist Philips Medical Systems 22100 Bothell Everett Highway Bothell, WA 98021-8431

Tel: (425) 487-7371 Fax: (425) 487-8666

This summary was prepared on February 15, 2008.

The proprietary name of the device is the HD7 Diagnostic Ultrasound System. In combination with transducers - L12-3, L12-5 50, 15-6L, S4-2, S8, C5-2, C6-3, C8-5, D5009V, E6509, C8-4V, T6H— are commonly known as a diagnostic ultrasound system and transducers.

These devices are classified as follows:

90IYN Ultrasonic Pulsed Doppler Imaging System 90IYO Ultrasonic Pulsed Echo Imaging System 90ITX Diagnostic Ultrasound Transducer

As stated in 21 CFR, parts 892.1550, 892.1560 and 892.1570, each of these generic types of devices have been classified as Class II.

The HD7 is a diagnostic ultrasound device. It consists of a system console containing the power supply and electronic circuitry required to generate the image, a display screen, and a connection to the separate transducers. It is substantially equivalent to the currently marketed M2540/EnVisor ultrasound systems and transducers cleared in K014191.

The HD7 system and transducers function in a manner identical to all Philips ultrasound systems and transducers. The system circuitry generates an electronic voltage pulse, which is transmitted to the transducer. In the transducer, a piezo-electric array converts the electronic pulse into an ultrasonic pressure wave. When coupled to the body, the pressure wave transmits through body tissues. The differing acoustic properties of the tissues in the body reflect some of the transmitted energy back to the transducer, where it is converted back to electrical signals and sent back to the system. In the system, advanced signal processing technologies convert the returned signals into images of the tissues. The Doppler functions of this system process the Doppler shift frequencies from the echoes of moving targets (such as blood), to detect and graphically display the Doppler shifts of these tissues as flow.

The HD7 is intended for diagnostic ultrasound imaging and fluid flow analysis.

The HD7 is substantially equivalent in safety and effectiveness to the predicates identified above:

- Both the predicate device and the HD7 are indicated for the diagnostic ultrasonic imaging and fluid flow analysis.
- Both the predicate device and the HD7 have the same gray-scale and Doppler capabilities.
- Both the predicate device and the HD7 use essentially the same technologies for imaging, Doppler functions and signal processing.
- Both the predicate device and the HD7 have acoustic output levels below the Track 3 FDA limits.
- Both the predicate device and the HD7 are manufactured under equivalent quality systems.
- Both the predicate device and the HD7 are manufactured of materials with equivalent biosafety. The materials have been evaluated and found to be safe for this application.
- Both the predicate device and HD7 are designed and manufactured to the same electrical and physical safety standards.



Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

MAR 2 7 2008

Philips Medical Systems % Mr. Mark Job Responsible Third Party Official Regulatory Technology Services LLC 1394 25th Street NW BUFFALO MN 55313

Re: K080548

Trade/Device Name: HD7 Diagnostic Ultrasound System

Regulation Number: 21 CFR 892.1550

Regulation Name: Ultrasonic pulsed doppler imaging system

Regulatory Class: II

Product Code: IYN, IYO, and ITX

Dated: March 13, 2008 Received: March 14, 2008

Dear Mr. Job:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

This determination of substantial equivalence applies to the following transducers intended for use with the HD7 Diagnostic Ultrasound System, as described in your premarket notification:

Transducer Model Number

<u>21422A (S4-2)</u>	<u>21390A (15-6L)</u>	21336A (E6509)
21350A (S8)	21426A (C5-2)	989605359591 (C6-3)
21475A (L12-3)	989605352341 (C8-5)	21223B (D5009V)
989803002251 (L12-5 50)	989803002683 (C8-4v)	21378A (T6H)

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This determination of substantial equivalence is granted on the condition that prior to shipping the first device, you submit a postclearance special report. This report should contain complete information, including acoustic output measurements based on production line devices, requested in Appendix G, (enclosed) of the Center's September 30, 1997 "Information for Manufacturers Seeking Marketing Clearance of Diagnostic Ultrasound Systems and Transducers." If the special report is incomplete or contains unacceptable values (e.g., acoustic output greater than approved levels), then the 510(k) clearance may not apply to the production units which as a result may be considered adulterated or misbranded.

The special report should reference the manufacturer's 510(k) number. It should be clearly and prominently marked "ADD-TO-FILE" and should be submitted in duplicate to:

Food and Drug Administration Center for Devices and Radiological Health Document Mail Center (HFZ-401) 9200 Corporate Boulevard Rockville, Maryland 20850

This letter will allow you to begin marketing your device as described in your premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus permits your device to proceed to market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (240) 276-3150 or at its Internet address http://www.fda.gov/cdrh/industry/support/index.html

If you have any questions regarding the content of this letter, please contact Ms. Lauren Hefner at (240) 276-3666.

Sincerely yours,

In Nancy C. Brogdon

Director, Division of Reproductive, Abdominal and Radiological Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure(s)

4.3.2 Indications for Use Tables

DIAGNOSTIC ULTRASOUND INDICATIONS FOR USE FORM

510(k) Number: HD7 Diagnostic Ultrasound System

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application		Mode of Operation								
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)		
Ophthalmic	Ophthalmic	N		N	N	N	N	N		
	Fetal/Obstetric	N	N	N	N	N	N	N		
	Abdominal	N	N	N	N	N	N	N		
	Intra-operative (vascular/epicardial)	N	N	N	N	N	N	N		
	Intra-operative (Neuro)	N	N	N		N	N	N		
	Laparoscopic									
Fetal Imaging	Pediatric	N	N	N	N	N	N	N		
& Other	Small Organ (thyroid, scrotum, prostate, breast)	N	N	N		N	N	N		
	Neonatal Cephalic	N	N	N		N	N	N		
	Adult Cephalic	N	N	N	N	N	N	N		
	Trans-rectal	N	N	N		N	N	N		
	Trans-vaginal	N	N	N		N	N	N		
	Trans-urethral	<u> </u>	<u> </u>							
	Trans-esoph. (non-Card.)	<u> </u>	<u> </u>		ļ					
	Intra-luminal	↓	<u> </u>							
	Other (Gynecological)	N	N	N	N	N	N	N		
	Cardiac Adult	N	N	N	N	N	N	N		
Cardiac	Cardiac Pediatric	N	N	N	N	N	N	N		
	Trans-esoph. (Cardiac)	N	N	N	N	N	N	N		
	Other (Fetal)	N	N	N	<u> </u>	N	N	N		
Peripheral	Peripheral vessel	N	N	N	N	N	N	N		
Vessel	Other (Specify)	<u> </u>								
	Musculo-skel (conventional)	N	N	N		N	N	N		
	Musculo-skel (superficial)	N	N	N		N	N	N		

N= new indication; P= previously cleared by FDA; E= added under Appendix E

* Other modes: Color Power Angio, 3-D Imaging, Panoramic, Harmonics (Tissue & Contrast), Directional Angio Imaging, Tissue Doppler Imaging

Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color

Previous submission: No previous 510(k)s are associated with this product

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Concurrence of Center for Devices and Radiological Health, Office of Device Evaluation

	Prescription Use (Per 21 CFR 801.109)
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(Division Sign-Off)	5
Division of Reproductive, Abdom	inal, Page 14
and Radiological Devices	* . ! ~
510(k) Number <u> </u>	<u>>48</u>

510(k) Number:

System: HD7 Diagnostic Ultrasound System

Transducer: 21422A (S4-2) Sector transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Appl	ication	Γ	Mode of Operation							
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)		
Ophthalmic	Ophthalmic	P		P	P	P	P	P		
	Fetal/Obstetric	P	P	P	P	P	P	P		
	Abdominal	P	P	P	P	P	P	P		
	Intra-operative (vascular/epicardial) Intra-operative (Neuro)	_								
	Laparoscopic	╂	<u> </u>	 						
Fetal Imaging	Pediatric	P	P	P	P	P	P	P		
& Other	Small Organ (thyroid, scrotum, prostate, breast)									
	Neonatal Cephalic Adult Cephalic	P	 _		-					
	Trans-rectal	+-	P	P	P	P	P	P		
	Trans-vaginal	┼┈	├	<u> </u> .			 			
	Trans-vaginal Trans-urethral	╂╌	├	 						
	Trans-esoph. (non-Card.)	╂	╁	 			 	1		
	Intra-luminal	╁╌	 	 	 		 			
	Other (Gynecological)	P	P	P	P	P	P	P		
	Cardiac Adult	P	P	P	P	P	P	P		
Cardiac	Cardiac Pediatric	ΤĒ	P	P	P	P	P	P		
	Trans-esoph. (Cardiac)	Ť	 -	 	 	 	1	1		
	Other (Fetal)	T-	<u> </u>	1		1	1	†		
Peripheral	Peripheral vessel	E	E	E	E	E	E	E		
Vessel	Other (Specify)	T		1				† -		
	Musculo-skel (conventional) Musculo-skel (superficial)	1	-							
NT				1				1		

N= new indication; P= previously cleared by FDA; E= added under Appendix E
*Other modes include: Color Power Angio, 3D, Panoramic, Harmonics, Directional Angio Imaging, Tissue
Doppler Imaging
Combined modes:. Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color
Previous submission: K014191 for Ophthalmic, Fetal, Abdominal, Pediatric, Adult Cephalic, Adult &
Pediatric Cardiac. K043535 for Gynecological, Peripheral Vessel.

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Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number /\ \(\text{Vol.05}\)

510(k) Number:
System: HD7 Diagnostic Ultrasound System
Transducer: 21350A (S8) Sector transducer
Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Appl	ication			f Operat			,,,,,,	
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal/Obstetric	P	P	P		P	P	P
	Abdominal	P	P	P	P	P	P	P
	Intra-operative (vascular/epicardial)							
	Intra-operative (Neuro)	<u> </u>	<u> </u>					
	Laparoscopic	L.						
Fetal Imaging	Pediatric	P	P	P	P	P	P	P
& Other	Small Organ (thyroid, scrotum, prostate, breast)					-		
	Neonatal Cephalic	P	P	P		P	P	P
	Adult Cephalic	<u> </u>	<u> </u>					
	Trans-rectal							
	Trans-vaginal	<u> </u>	<u></u>					
	Trans-urethral	1_	<u> </u>					
	Trans-esoph. (non-Card.)	L						
	Intra-luminal	↓_						
	Other (Gynecological)	P	P	P	P	P	P	P
	Cardiac Adult	P	P	P	P	P	P	P
Cardiac	Cardiac Pediatric	P	P	P	P	P	P	P
	Trans-esoph. (Cardiac)							
	Other (Fetal)	1						
Peripheral	Peripheral vessel	P	P	P		P	P	P
Vessel	Other (Specify)							
	Musculo-skel (conventional)							
	Musculo-skel (superficial)				1			

N= new indication; P= previously cleared by FDA; E= added under Appendix E *Other modes: Color Power Angio, 3D, Panoramic, Directional Angio Imaging, Tissue Doppler Imaging Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color Previous submission: K014191

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off) Division of Reproductive, Abdominal,

and Radiological Devices,

510(k) Number_

DIAGNOSTIC ULTRASOUND INDICATIONS FOR USE FORM

510(k) Numb	er:							
System: HD7	Diagnostic Ultrasound Sys	tem						
Transducer:	:::::::::::::::::::::::::::::::::::::	r ArrayTra	ınsdu	ıcer				
Intended Use:	: Diagnostic ultrasound ima	ging or fluid	flow	v analysi	s of the h	uman body a	s follows:	
Clinical Appl						de of Operat		
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal/Obstetric							
	Abdominal	P	P	P		P	P	P

P Intra-operative (vascular/epicardial) Intra-operative (Neuro) Laparoscopic Fetal Pediatric P P P P P P **Imaging** & Other Small Organ (thyroid, scrotum, P P P P prostate, breast) Neonatal Cephalic Adult Cephalic Trans-rectal Trans-vaginal Trans-urethral Trans-esoph. (non-Card.) Intra-luminal Other (Gynecological) Cardiac Adult Cardiac Cardiac Pediatric Trans-esoph. (Cardiac) Other (Fetal) Peripheral Peripheral vessel P P P P P P Vessel Other (Specify) Musculo-skel (conventional) P P P P P P Musculo-skel (superficial) P P P P P N= new indication; P= previously cleared by FDA; E= added under Appendix E

*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3-D Imaging, Directional Angio Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color Previous submission: K014191

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Prescription Use (Per 21 CFR 801.109)

080548

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number.

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DIAGNOSTIC ULTRASOUND INDICATIONS FOR USE FORM

310(K) D	(umocr:
System:	HD7 Diagnostic Ultrasound System

Transducer: 989803002251 (L12-5 50) Linear Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Appl	ication interest in items in i					de of Operati		
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
Fetal Imaging & Other	Fetal/Obstetric Abdominal Intra-operative (vascular/epicardial) Intra-operative (Neuro) Laparoscopic Pediatric Small Organ (thyroid, scrotum, prostate, breast) Neonatal Cephalic Adult Cephalic Trans-rectal Trans-vaginal Trans-urethral Trans-esoph. (non-Card.) Intra-luminal	E E P	E E P	E E P		E E P	E E P	E E P
Cardiac	Other (Gynecological) Cardiac Adult Cardiac Pediatric Trans-esoph. (Cardiac) Other (Fetal)							
Peripheral Vessel	Peripheral vessel Other (Specify)	P		P		P	P	P
	Musculo-skei (conventional) Musculo-skei (superficial)	P P	_	P P		P P	P	P P

N= new indication; P= previously cleared by FDA; E= added under Appendix E

*Other modes: Color Power Angio, Panoramic, Directional Angio Imaging

Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color

Previous submission: K991671 for Intraoperative (Abdominal and Vascular Small Parts,) Musculo-skeletal (conventional and Superficial), Pediatric, Peripheral Vascular

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Prescription Use (Per 21 CFR 801.109)

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Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number_

510(k) Number:

DIAGNOSTIC ULTRASOUND INDICATIONS FOR USE FORM

System: HD7	Diagnostic Ultrasound System							
Transducer:	21390A (15-6L) Linear array	y tra:	nsdu	cer				
Intended Use:	Diagnostic ultrasound imaging or	fluid	flow	analysi	s of the h	uman body a	s follows:	
Clinical Appli	ication		_	1-		de of Operat		
General	Specific	В	M	PWD	CWD	Color	Combined	Other*
(Track I	(Tracks I & III)	1		İ		Doppler	(Specify)	(Specify)
Only)		<u>l</u>			<u> </u>		` ' '	(-1)
Ophthalmic	Ophthalmic			,				
	Fetal/Obstetric	П						
	Abdominal							
	Intra-operative	P	P	P		P	P	P
	(vascular/epicardial)	l	ĺ			•	1	•
	Intra-operative (Neuro)	P	P	P		P	P	P
	Laparoscopic	Γ						
Fetal	Pediatric	P	P	P		P		P
Imaging			l			_		-
& Other	Small Organ (thyroid, scrotum,	P	P	P		P	P	P
	prostate, breast)		<u></u>				_	-
	Neonatal Cephalic		L					
	Adult Cephalic							
	Trans-rectal							
	Trans-vaginal						1	
	Trans-urethral						1	
	Trans-esoph. (non-Card.)							
	Intra-luminal		L —					
	Other (Gynecological)							· · · · · ·
	Cardiac Adult					<u> </u>		
Cardiac	Cardiac Pediatric	Г						 -
	Trans-esoph. (Cardiac)	Γ					 	
	Other (Fetal)							
Peripheral	Peripheral vessel	P	P	P		P	P	P
Vessel	Other (Specify)	T					 - 	4
	Musculo-skel (conventional)	P	P	P		P	P	P
	Musculo-skel (superficial)	T					 	
N= new indica	ation; P= previously cleared by FD	A: F	= add	ded unde	r Annen	liv F		L
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*Other modes: Amplitude Doppler, Panoramic, Directional Angio Imaging
Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color

Prescription Use (Per 21 CFR 801.109)

Previous submission: K014191

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(Division Sign-Off) Division of Reproductive, A	Abdominal,
and Radiological Devices	K080548
510(k) Number/	(= 0 - 0 (-

510(k) N	umber:	
System:	HD7 Diagnostic Ultrasound	System

Transducer: 21426A (C5-2) Curved Linear Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application			Mode of Operation										
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)					
Ophthalmic	Ophthalmic												
	Fetal/Obstetric	P	P	P		P	P	P					
	Abdominal	P	P	P		P	P	P					
	Intra-operative (vascular/epicardial)												
	Intra-operative (Neuro) Laparoscopic	├ ─	 	-									
Fetal Imaging	Pediatric	P	P	P		P	P	P					
& Other	Small Organ (thyroid, scrotum, prostate, breast)												
	Neonatal Cephalic		<u> </u>		-			ļ					
	Adult Cephalic Trans-rectal	<u> </u>	 	ļ <u>-</u>			ļ						
	Trans-rectar Trans-vaginal	╂	-	ļ		<u></u>	 						
	Trans-vaginal Trans-urethral	╂	┢	 	1	<u>} </u>	 						
	Trans-esoph. (non-Card.)	╂╌	-	<u> </u>		<u> </u>							
	Intra-luminal	╂╌	├		<u> </u>		-						
	Other (Gynecological)	P	P	P		P	P	P					
	Cardiac Adult	T			† <u> </u>		 	1					
Cardiac	Cardiac Pediatric	1				<u> </u>		 					
	Trans-esoph. (Cardiac)	Τ_		1	1								
	Other (Fetal)	\mathbf{L}^{-}					-	<u> </u>					
Peripheral	Peripheral vessel	P	P	P		P	P	P					
Vessel	Other (Specify)							<u> </u>					
	Musculo-skel (conventional)												
<u></u>	Musculo-skel (superficial)							1 -					

N= new indication; P= previously cleared by FDA; E= added under Appendix E

*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3-D Imaging, Directional Angio Imaging, iSCAN, Doppler/2D

Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color, Dual

Previous submission: K043535

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices Ko 80548

510(k) Number.

210(K) V	iumb	er:		
System:	HD7	Diagnostic	Ultrasound	System

Transducer: 989605352341 (C8-5) Curved Linear Transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical Application			Mode of Operation									
General (Track I Only)	Specific (Tracks I & III)	В	M	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)				
Ophthalmic	Ophthalmic											
	Fetal/Obstetric	P	P	P		P	P	P				
	Abdominal	P	P	P		P	P	P				
	Intra-operative (vascular/epicardial)			_								
	Intra-operative (Neuro)	<u> </u>										
	Laparoscopic	<u> </u>			ļi	·						
Fetal Imaging	Pediatric	P	P	P		P	P	P				
& Other	Small Organ (thyroid, scrotum, prostate, breast)											
	Neonatal Cephalic	P	P	P		P	P	P				
	Adult Cephalic	<u>L</u> _										
	Trans-rectal	<u>L</u>	<u> </u>									
	Trans-vaginal	<u> </u>	<u> </u>									
	Trans-urethral	<u>L</u> _	<u> </u>	ļ								
	Trans-esoph. (non-Card.)	<u> </u>	<u> </u>									
	Intra-luminal	_	<u> </u>				<u> </u>					
	Other (Gynecological)	P	P	P		P	P	P				
a	Cardiac Adult	<u> </u>	<u> </u>	 	ļ							
Cardiac	Cardiac Pediatric	┞-	 	<u> </u>								
	Trans-esoph. (Cardiac)	 _	+_		.		<u> </u>					
Desirab	Other (Fetal)	P	P	P		P	P	P				
Peripheral Vacant	Peripheral vessel	P	P	P	 	P	P	P				
Vessel	Other (Specify)	╄-	-	 	ļ		-					
	Musculo-skel (conventional) Musculo-skel (superficial)	╁	├		 		 					
	iviuscuio-skei (superiiciai)	I		1	1	<u> </u>		<u></u>				

N= new indication; P= previously cleared by FDA; E= added under Appendix E
*Other modes: Color Power Angio, Harmonics (Tissue), Directional Angio Imaging, Tissue Doppler Imaging
Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color, Dual
Previous Submission: K043535

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Prescription Use (Per 21 CFR 801.109)

(Division Sign-Off)

Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number 680548

510(k) Number:
System: HD7 Diagnostic Ultrasound System
Transducer: 989803002683 (C8-4v) Curved Linear Transducer
Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follow

Clinical Appl	fluid flow analysis of the human body as follows: Mode of Operation									
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)		
Ophthalmic	Ophthalmic									
Fetal Imaging & Other	Fetal/Obstetric Abdominal Intra-operative (vascular/epicardial) Intra-operative (Neuro) Laparoscopic Pediatric Small Organ (thyroid, scrotum, prostate, breast) Neonatal Cephalic Adult Cephalic Trans-rectal Trans-vaginal Trans-urethral Trans-esoph. (non-Card.)	P	P	P		P	P	P		
Cardiac	Intra-luminal Other (Gynecological) Cardiac Adult Cardiac Pediatric	P	P	P		P	P	P		
	Trans-esoph. (Cardiac) Other (Fetal)									
Peripheral Vessel	Peripheral vessel Other (Specify) Musculo-skel (conventional) Musculo-skel (superficial)									

N= new indication; P= previously cleared by FDA; E= added under Appendix E

*Other modes: SonoCT, X-Res, Color Power Angio, Panoramic, 3-D Imaging, Directional Angio Imaging
Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color, Dual

Previous submission: K043535 for Fetal, Trans-vaginal. K961459 for Fetal, Trans-vaginal, Gynecological.

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Prescription Use (Per 21 CFR 801.109)

K680548

(Division Sign-Off)
Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number_

510(k) Number:	
System: HD7 Diagnostic Ultrasound System	

Transducer: 21336A (E6509) Endocavity transducer

Intended Use: Diagnostic ultrasound imaging or fluid flow analysis of the human body as follows:

Clinical App	lication	_		f Operat				
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal/Obstetric	P	P	P		P	P	P
	Abdominal							
	Intra-operative (vascular/epicardial)							
	Intra-operative (Neuro)							
	Laparoscopic							
Fetal Imaging	Pediatric							:
& Other	Small Organ (thyroid, scrotum, prostate, breast)	P	P	P		P	Р	P
	Neonatal Cephalic							
	Adult Cephalic						_[
	Trans-rectal	P	P	P		P	P	P
-	Trans-vaginal	P	P	P		P	P	P
	Trans-urethral	<u> </u>	<u> </u>	ļ				
	Trans-esoph. (non-Card.)	ļ	<u> </u>	<u> </u>	<u> </u>			
	Intra-luminal	╄	 				·	
	Other (Gynecological)	╀	ļ.,					
C4:	Cardiac Adult	 		ļ			<u> </u>	<u> </u>
Cardiac	Cardiac Pediatric	╄-	<u> </u>	<u> </u>	 		ļ	
	Trans-esoph. (Cardiac) Other (Fetal)	╂		 				<u> </u>
Peripheral	Peripheral vessel	╀╌		<u> </u>	-			
Vessel	Other (Specify)	╄	+					1
+ C33C1	Musculo-skel (conventional)	╂-	┼─	 			ļ	
	Musculo-skel (superficial)	+-	-		 		 	
37 ' 1'				1		L	_L	1

N= new indication; P= previously cleared by FDA; E= added under Appendix E

*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3-D Imaging, Directional Angio Imaging, Tissue doppler Imaging

Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color

Previous submission: K014191

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Prescription Use (Per 21 CFR 801.109)

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Division of Reproductive, Abdominal,

and Radiological Devices

510(k) Number_

510(k) Number:	
System: HD7 Diagnostic Ultrasound System	

Transducer: 989605359591 (C6-3) Curved Linear Transducer

	Intended Use: Diagnostic ultrasound imaging or fluid flow anal	lysis of the human body as follows:
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Clinical Appli	ication	riuia			Mo	de of Operati	ion	
General (Track I Only)	Specific (Tracks I & III)	В	М	PWD	CWD	Color Doppler	Combined (Specify)	Other* (Specify)
Ophthalmic	Ophthalmic							
	Fetal/Obstetric	P	P	P		P	P	P
	Abdominal	P	P	P		P	P	P
	Intra-operative (vascular/epicardial)							
	Intra-operative (Neuro)	<u>L</u>						
T . I	Laparoscopic	<u>L</u> _		<u> </u>				ļ
Fetal Imaging	Pediatric	P	P	P		P	P	P
& Other	Small Organ (thyroid, scrotum, prostate, breast)	IP	P	P		P	P	P
	Neonatal Cephalic	L						
	Adult Cephalic	<u> </u>						
	Trans-rectal							
	Trans-vaginal	<u> </u>					<u> </u>	
	Trans-urethral	<u> </u>	<u> </u>					
	Trans-esoph. (non-Card.)	<u> </u>		ļ				
	Intra-luminal	<u> </u>	<u> </u>	·				
 ,	Other (Gynecological)	P	P	P		P	P	P
Cardiac	Cardiac Adult	 						
Cardiac	Cardiac Pediatric	⊢	-	ļ			<u> </u>	
	Trans-esoph. (Cardiac) Other (Fetal)	╂	-		-		 	
Peripheral	Peripheral vessel	P	P	P		7	 	
Vessel	Other (Specify)	╀	r	P	<u> </u>	P	P	P
7 00001	Musculo-skel (conventional)	┼	├-	-	 			
	Musculo-skel (superficial)	 			 		 	

N= new indication; P= previously cleared by FDA; E= added under Appendix E

*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3-D Imaging, Directional Angio Imaging, iSCAN, Doppler/2D

Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color, Dual

Previous submission: K062247

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Division of Reproductive, Abdominal,	
and Radiological Devices	Page 24
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Prescription Use (Per 21 CFR 801.109)

510(k) Number:

DIAGNOSTIC ULTRASOUND INDICATIONS FOR USE FORM

System: HD7	Diagnostic Ultrasound System							
Transducer:	21223B (D5009V) Non-imag	ing p	encil	transdi	ıcer			
Intended Use:	Diagnostic ultrasound imaging or	fluid	flow	analysi	s of the h	uman body a	as follows:	
Clinical Appli	cation				Mod	de of Operat	ion	
General	Specific	В	M	PWD	CWD	Color	Combined	Other*
(Track I	(Tracks I & III)		1			Doppler	(Specify)	(Specify)
Only)			<u> </u>] ` ` ' ' '	
Ophthalmic	Ophthalmic	I						
	Fetal/Obstetric	Π						
	Abdominal							
	Intra-operative							~
	(vascular/epicardial)	١.						
	Intra-operative (Neuro)					W	<u> </u>	
	Laparoscopic	T						
Fetal	Pediatric	T_				****		
Imaging	<u></u> .		1					
& Other	Small Organ (thyroid, scrotum,	Т				······································	<u> </u>	
•	prostate, breast)				1			
	Neonatal Cephalic						<u> </u>	
	Adult Cephalic		<u> </u>					
	Trans-rectal					····		
	Trans-vaginal							
	Trans-urethral			1		*****		
	Trans-esoph. (non-Card.)							
	Intra-luminal	Π						
	Other (Gynecological)							
	Cardiac Adult							
Cardiac	Cardiac Pediatric				1			
	Trans-esoph. (Cardiac)					****	1	<u> </u>
	Other (Fetal)						 	
Peripheral	Peripheral vessel			P	P			
Vessel	Other (Specify)							
Į.	Musculo-skel (conventional)	1	T	1	1	· · · · · · · · · · · · · · · · · · ·	 	

N= new indication; P= previously cleared by FDA; E= added under Appendix E

*Other modes: Color Power Angio, Panoramic, Harmonics (Tissue & Contrast), 3-D Imaging, Directional Angio Imaging, iSCAN, Doppler/2D

Combined modes: Duplex = 2D + Doppler; Triplex = 2D + Doppler + Color, Dual

Previous submission: Cleared as D5014V on K014191

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Prescription Use (Per 21 CFR 801.109)

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Division of Reproductive, Abdominal, and Radiological Devices

Musculo-skel (superficial)

510(k) Number:	
System: HD7 Diagnostic Ultrasound System	
Transducer: 21378A (T6H) Omni III T	Transesophageal Transducer
Intended Use: Diagnostic ultrasound imaging	or fluid flow analysis of the human body as follows
O1: 1 1 4 1: 41	1.6 1 .00 .:

	Diagnostic ultrasound imaging or	_				numan body a	as toliows:	
Clinical Application		Μc	de o	f Operat				
General	Specific	В	M	PWD	CWD	Color	Combined	Other*
(Track I	(Tracks I & III)					Doppler	(Specify)	(Specify)
Only)		_						
Ophthalmic	Ophthalmic				<u> </u>			
	Fetal/Obstetric				•			
	Abdominal				<u></u>			
	Intra-operative							İ
	(vascular/epicardial)	<u> </u>						
	Intra-operative (Neuro)			ļ <u>.</u>				
	Laparoscopic	<u> </u>					1	
Fetal	Pediatric			ļ				
Imaging		1						
& Other	Small Organ (thyroid, scrotum,	ŀ				}		
	prostate, breast)	! —			<u> </u>			
	Neonatal Cephalic						1	
	Adult Cephalic	<u></u>				<u></u>		
	Trans-rectal	1_			ļ			
	Trans-vaginal	ļ			ļ			
	Trans-urethral	!	ļ		<u> </u>		ļ	
	Trans-esoph. (non-Card.)			1				
	Intra-luminal	<u> </u>						
	Other (Gynecological)	<u> </u>				ļ		
	Cardiac Adult	P	P	P	P	P	P	P
Cardiac	Cardiac Pediatric	P	P	P	P	P	P	P
	Trans-esoph. (Cardiac)	P	P	P	P	P	P	P
	Other (Fetal)	<u></u>			<u> </u>			
Peripheral	Peripheral vessel	1_						
Vessel	Other (Specify)							
	Musculo-skel (conventional)							
	Musculo-skel (superficial)							

N= new indication; P= previously cleared by FDA; E= added under Appendix E

*Other modes: Color Power Angio, Harmonics (Tissue & Contrast), 3-D Imaging, Directional Angio Imaging,
Tissue Doppler Imaging

Combined modes: 2D + Doppler; Triplex = 2D + Doppler + Color,
Previous submission: K043535 for adult, pediatric and transesophageal cardiac

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